

18.12.2003-Bernd Gellner

Patent claims

1. Method for producing a plate heat exchanger from a plurality of heat exchanger blocks which each have a multiplicity of heat exchange passages, each heat exchanger block having mounted on it a header which extends over at least part of one side of the heat exchanger block and which makes a flow connection between part of the heat exchange passages, characterized in that the heat exchanger blocks (1a, 1b) are arranged next to one another, and the headers (6a, 6b; 7a, 7b) of two adjacent heat exchanger blocks (1a, 1b) are provided on their mutually confronting sides with orifices and are connected to one another in such a way that a flow connection occurs between the two headers (6a, 6b; 7a, 7b).
2. Method according to Claim 1, characterized in that those sides of the headers (6a, 6b; 7a, 7b) confront one another which are arranged essentially perpendicularly to that side (5a, 5b) of the heat exchanger block (1a, 1b) over which the respective header (6a, 6b; 7a, 7b) extends.
3. Method according to one of Claims 1 or 2, characterized in that one of the two headers (6a, 6b; 7a, 7b) is provided with a fluid connection (12, 13), the fluid connection (12, 13) being arranged perpendicularly to those sides (5a, 5b) of the heat exchanger blocks (1a, 1b) in which the inlet and outlet orifices of the heat exchange passages are located.
4. Method according to Claim 3, characterized in that all the fluid connections (12, 13) of the plate heat exchanger are provided on the same side.

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5. Method according to one of Claims 1 to 4, characterized in that the two headers (6a, 6b; 7a, 7b) are connected to one another in such a way that their cross section does not decrease at the connection point (17, 18).

6. Method according to one of Claims 1 to 5, characterized in that the headers (6a, 6b; 7a, 7b) are of semicylindrical design.

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7. Method according to one of Claims 1 to 6, characterized in that a connection piece (17, 18) is introduced between the two headers (6a, 6b; 7a, 7b).

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8. Method according to Claim 7, characterized in that the heat exchanger blocks (1a, 1b) are arranged, spaced apart from one another, and are connected to one another by means of a sheet (16, 27), or a strip in such a way that that side of the connection piece (16, 27) which faces the heat exchanger blocks (1a, 1b) is completely covered by a side face of a heat exchanger block (1a, 1b) and/or the sheet (16, 27) and/or the strip.

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9. Method according to one of Claims 1 to 8, characterized in that the heat exchanger blocks (1a, 1b) are tested for leak-tightness and/or compressive strength before their headers (6a, 6b; 7a, 7b) are connected to one another.